

Date: Tue, 13 Jul 93 13:38:40 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #849
To: Info-Hams

Info-Hams Digest Tue, 13 Jul 93 Volume 93 : Issue 849

Today's Topics:

7Q7XX
Channel 6 interference
COBRA 32 XLR
Communities that unduly restrict Amateur Radio operations (4 msgs)
FEEDBACK is driving me MAD!
SWR
What does it take to fry RG-223
Yaesu FT-530 or Alinco DJ-580T?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 13 Jul 1993 14:22:01 -0500
From: pravda.sdsc.edu!news.cerf.net!usc!cs.utexas.edu!gerald@cc.utexas.edu!
emx.cc.utexas.edu!not-for-mail@network.UCSD.EDU
Subject: 7Q7XX
To: info-hams@ucsd.edu

The QSL route is via JH3RRA, he has been giving this info for at least a year, so it should be fine.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

Date: 13 Jul 1993 18:29:21 GMT
From: elroy.jpl.nasa.gov!swrinde!gatech!europa.eng.gtefsd.com!darwin.sura.net!
haven.umd.edu!cville-srv.wam.umd.edu!ham@ames.arpa
Subject: Channel 6 interference
To: info-hams@ucsd.edu

>> Can somebody tell me where I might look for the source of interference on
>> Channel 6? I'm getting reports that the video is being interfered with.
>>
>> None of the other channels are being affected, but Channel 6 is a fairly
>> weak signal. And, its a Cable channel.
>>From a frequency chart I have it says that the 3rd harmonic from CB radio
>falls on ch 6.

Question: Is the interference occurring on a TV that's hooked to Cable TV?
Cable is supposed to be a closed system, electrically speaking.

I have heard of CB'ers hooking up their radios to the cable, and
being able to talk all over the city with (WOW!) no interference!

Just that I didn't quite understand the original circumstances.
Is the receiving TV on an antenna or on cable?

Scott NF3I

--

73,

----- The
 \ / Long Original
Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00

WAC CW/SSB WAS 95% of the way to DXCC _____| Dipoles! Antenna!

Date: 13 Jul 93 10:14:16 CDT
From: swrinde!cs.utexas.edu!math.ohio-state.edu!howland.reston.ans.net!
ux1.cso.uiuc.edu!uchinews!raistlin!timbuk.cray.com!hemlock.cray.com!
mfl@network.UCSD.EDU
Subject: COBRA 32 XLR
To: info-hams@ucsd.edu

I am looking for schematics for the the Cobra 32 XLR CB.
Can anyone help ?

Thanks

- Matthias

Date: Tue, 13 Jul 1993 15:36:53 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!gatech!
europa.eng.gtefsd.com!darwin.sura.net!uvaarpa!murdoch!livia.acs.Virginia.EDU!
jeg7e@network.UCSD.EDU
Subject: Communities that unduly restrict Amateur Radio operations
To: info-hams@ucsd.edu

In article <1713@arrl.org> jhennessee@arrl.org (John Hennessee) writes:

>
>
>One of the many membership services ARRL HQ offers is the "PRB-1
>package." HQ is only able to send out this large 150 page package to
>amateurs who have specific zoning problems since it is so expensive to
>print and mail.

Why not make this package available via mail server, FTP sites, and such?
I'll deal with the cost of printing, if necessary, and mailing is moot.

--

\\ \ / Jon Gefaell, Computer Systems Engineer | Amateur Radio - KD4CQY
\\ \ / Information Technology and Communications | -Will chmod for food-
\\ \ / The University of Virginia, Charlottesville | Hacker@Virginia.EDU
The opinions expressed herein are not intended to be construed as those of UVA

Date: Tue, 13 Jul 1993 18:58:49 GMT
From: elroy.jpl.nasa.gov!sdd.hp.com!col.hp.com!news.dtc.hp.com!srngenprp!
alanb@ames.arpa
Subject: Communities that unduly restrict Amateur Radio operations
To: info-hams@ucsd.edu

Bruce Perens (Bruce@Pixar.com) wrote:

: I'd like to know if anyone at ARRL or elsewhere is keeping an anecdotal
: file on communities that attempt to restrict amateur radio activities, through
: antenna restrictions, nuisance suits, and otherwise. If so, is this file
: publicly accessable?

: For instance, I'd never consider a home in a community with antenna
: restrictions. However, I'd like to know if there's been any other anti-ham
: activity in that community before I purchase a home there.

I think your best bet is to write ARRL headquarters and get the names
of the local clubs in the areas you are interested in. Call some local

club members and ask what problems they have had with the local authorities.

AL N1AL

Date: Tue, 13 Jul 1993 18:32:03 GMT
From: mentor.cc.purdue.edu!noose.ecn.purdue.edu!dynamo.ecn.purdue.edu!
wb9omc@purdue.edu
Subject: Communities that unduly restrict Amateur Radio operations
To: info-hams@ucsd.edu

clifto@indep1.UUCP (Cliff Sharp) writes:

>In article <1993Jul12.200632.23803@pixar.com> Bruce@Pixar.com (Bruce Perens)
writes:

>>but I'm not interested in moving into an area that's already anti-ham.
>>I think it's a good idea for hams to use their economic power by avoiding
>>a home purchase in such communities. Perhaps we should even avoid patronizing
>>businesses in those areas. Maybe that would help them get the message.

> It may be petty of me, but as far as I'm concerned, just wait until one
>of those communities needs disaster relief communications. I suppose I could
>even say I have a valid reason for that; with this recent court decision
>holding that ham radio is a nuisance, I could even get sued for using my
>radio in such an area, being that Illinois doesn't have a "good samaritan"
>law (which usually applies to first aid and/or medical treatment anyway).

> If they don't want me around when I'm getting the practice I need, when
>I'm hooking up to the nets I'll need for emergencies and getting to know
>the people I'll be working with, then as far as I'm concerned they don't
>want me around when the tornado hits, either.
>--

Well Cliff, as much as I agree with the sentiment, I hate to see anyone actually do this.

I suspect that a positive and well-publicized effort after a major storm or other disaster would get far better effect or could be manipulated to far better effect than by standing by and watching people getting slaughtered.

What we hams really need is to get together (SOMEBODY needs to provide the leadership on this....like some organization) and go after this thing by the throat. Not in a nasty, ill-mannered way, but with good sound information and evidence on what good communications can do when it isn't interfered with by petty zoning restrictions.

But it's gonna have to be a LOT of us hams if we expect to do any good.

Not just a few vocal ones, but a LOT of us. Which means us vocal ones are gonna have to nail down the complacent ones to get their help.

Duane
WB9OMC

Date: Tue, 13 Jul 1993 18:14:01 GMT
From: mentor.cc.purdue.edu!noose.ecn.purdue.edu!dynamo.ecn.purdue.edu!
wb9omc@purdue.edu
Subject: Communities that unduly restrict Amateur Radio operations
To: info-hams@ucsd.edu

jhennessee@arrl.org (John Hennessee) writes:

>In rec.radio.amateur.misc, Bruce@Pixar.com (Bruce Perens) writes:
>>There's been a lot of discussion of late regarding local antenna
>>restrictions and ham-unfriendly communities.
>>
>>I'd like to know if anyone at ARRL or elsewhere is keeping an anecdotal
>>file on communities that attempt to restrict amateur radio activities, through
>>antenna restrictions, nuisance suits, and otherwise. If so, is this file
>>publicly accessable?

>This is a good suggestion, however, it isn't possible for several
>reasons. I work in the Regulatory Information Branch at ARRL HQ
>and one of the things we do is assist amateurs who are faced with
>overly restrictive local zoning ordinances. Our branch (which
>consists of three people) receives around 10 to 15 calls a day
>from people who are faced with overly restrictive ordinances.

OK, so make it available on line for those with net access,
and/or for those who could dial up to some sort of server at
HQ OR available on floppy disk to some nominal cost. Perhaps
instead of offering the entire list on disks, divvy it up by call areas,
e.g. a separate disk set for 0, 1, 2 etc. That would cut down the
cost and number of disks per customer.

>It's a physical impossibility for ARRL HQ to stay up-to-date on the
>various antenna ordinances of all towns and cities in the US. First,
[some stuff deleted]

Then don't do ALL towns and cities, just the ones with reported
problems that are severe enough to attract attention. That's really
what we're after here, isn't it?

>. Third, if

>and we can send you a number of cases and sample ordinances.

> N
>John Hennessee, KJ4KB
>Regulatory Information Specialist
>American Radio Relay League
>225 Main St
>Newington CT 06111
>203-666-1541
>Internet: jhennesse@arrl.org

IMHO, the league needs to address these kinds of concerns. Keeping a publically available database of communities where there are KNOWN problems would be of tremendous benefit to a great many hams. In this day and age of very high computer power at a much more affordable price, such a database shouldn't be too difficult to work with. If cold hard cash is a problem, solicit a donation. Surely there are enough well-to-do league members out there that could help.....

Duane
WB9OMC
currently non-member

Date: Tue, 13 Jul 1993 15:01:46 GMT
From: elroy.jpl.nasa.gov!swrinde!gatech!hubcap!emory!rsiatl!ke4zv!gary@ames.arpa
Subject: FEEDBACK is driving me MAD!
To: info-hams@ucsd.edu

In article <1993Jul13.014256.14702@iscsvax.uni.edu> thompsa1597@iscsvax.uni.edu writes:

>I'm having some problems with my RCI 2950. Feedback is driving me nutz.
>It is being caused by a 100w "generic" rectangular linear. (I've seen
>many of thje same design; I got this one used, with no literature) When
>I key down on LSB/USB and modulate, the feedback starts. I can even unplug
>the 2950 and the feedback is still going. It will stop if I unscrew the
>coax from radio to linear, or if I shut the amp off.
>
>Any ideas what could be the cause of the problems? (I suspect the linear
>is trashy, and needs to be modified/thrown away; it is currently in
>good repair)

You have identified the problem. Your amp is not unconditionally stable. In fact it's not stable at all. Once you start it into oscillation, the reactance of the radio's output stage is sufficient to keep it oscillating. A quick and dirty fix is to use swamping resistors in the amplifier input. But the amp is likely spectrally

nasty in any event. These "CB" footwarmers usually are.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 13 Jul 93 17:06:28 GMT
From: news-mail-gateway@ucsd.edu
Subject: SWR
To: info-hams@ucsd.edu

Jeff,

Geez! Just re-read your last, and I need to be sure I didn't assume something here. When you said "shortened" -51 feet- did/do you mean your antenna is 51 feet long end-to-end? versus 51 feet per leg!? The number 51 feet kinda' stuck in my mind, and since that is the usual length PER LEG of the G5RV, I thought thats what you meant! If your antenna is only 51 feet long total, then its not a G5RV. Rather, its an adaptation of the original design by someone else. What are we talking about here, just for a sanity check!

73

Paul

Date: Tue, 13 Jul 1993 14:57:00 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!gatech!hubcap!emory!rsiatl!ke4zv!gary@network.UCSD.EDU
Subject: What does it take to fry RG-223
To: info-hams@ucsd.edu

In article <1993Jul12.203052.28923@kpc.com> nat@kpc.com (Natarajan Gurumoorthy) writes:

>Hi,

> My station is a Kenwood TS520S, rated to produce a Max of 150 watts. I
>have a new antenna to hook up. MECI of Ohio sells RG-223 for 10c/foot. The
>question that I had was, "Will 150 watts fry the cable".

>

> RG-223 specs is as follows:

> 50 ohm 66% Velocity Factor 30.8 pf/foot OD 0.212".

> Polyethylene Dielectric, Double Shielding, Max RMSV 1900 Volts.

>

```

> Here is how I went about answering the question.
>
> Power = VRMS*VRMS/R
>
> VRMS = sqrt(POWER * R)
>         = sqrt(150 * 50)
>         = 86.6 Volts.
>
> Assuming horrible antenna match the Max SWR should be (1900/87) = 21.
> I think the cable will survive.
>
> Could the Gary Coffman types find a hole in my thinking or show me
>the correct way to look at this problem.

```

Well you're close, but no cigar. Here's the formula for Emax on a line with SWR.

$$E_{max} = \sqrt{P \cdot Z_0 \cdot SWR}$$

For a SWR of unity, that gives 86.6 volts just like you figured. But for a SWR of 21, the maximum voltage is 396.86. Rearranging terms we find that we need a SWR of 481.33:1 to reach 1900 volts Emax. Emin is easier. It's just Emax/SWR. Or, in this extreme case, 1900/481.33=3.947 volts. The reason we're interested in Emin is that we can determine how much current the cable will be carrying at the voltage minimum by P/Emin, or 150/3.947=38 amperes. Now this is cause for concern. That's a heavy current load for this small cable. Of course the SWR is extreme. Let's look at a more typical worst case SWR of 10:1. This is a value that may be experienced in practice with a random flattop antenna.

$$E_{max} = \sqrt{150 \cdot 50 \cdot 10} = 273.86$$

$$E_{min} = 273.86 / 10 = 27.39$$

$$I_{max} = 150 / 27.39 = 5.48 \text{ amperes}$$

Now cables have somewhat different characteristics at RF than they do at DC. Dielectric losses are proportional to Emax, and skin effect conduction losses are proportional to Imax. So a cable with SWR will have two different regions of "hot spots". At Emax the dielectric will be hot, and at Imax the conductors will be hot. We can't just go to the copper wire tables for conduction losses because RF losses are skin effects and the RF skin depth is frequency dependent. Dielectric losses are also frequency dependent. Our best guide is the db loss per 100 foot value that the manufacturer usually gives us. We can then use the curves for excess loss due to SWR in the handbook to give us an idea of the amount of power the cable will have to absorb. That power can then be apportioned based on Emax/Emin to show what the hot spots will be like. In your case, the cable will handle the power.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Tue, 13 Jul 1993 17:45:37 GMT

From: agate!howland.reston.ans.net!gatech!europa.eng.gtefsd.com!darwin.sura.net!
uvaarpa!murdoch!livia.acs.Virginia.EDU!jeg7e@ames.arpa

Subject: Yaesu FT-530 or Alinco DJ-580T?

To: info-hams@ucsd.edu

In article <21ulmt\$4jn@jericho.mc.com> levine@mc.com writes:

>

>>

>>How do you enable tone burst? I called Yaesu a few months ago and they had
>>no idea, and I haven't seen a mod to do that elsewhere, only the extended
>>transmit and receive mods (which were, as you say, easy, but you need a
>>soldering iron with a tiny tip).

>>Post Office Box Box 281107 San Francisco, California 94128 USA

>Enable tone burst by jumping pad 13. Then you push the button called
>Monitor(Burst) described on page 6 of the manual (RTFM).

Wrong. jumper pad 13 is closed from the factory. Removing this pad gives
extended tx/rx, removing pad 15 when pad 13 is removed removes tx, but
leaves rx enabled.

Perhaps you meant another pad?

>Yes, use a small tip low power soldering iron and trim some solder-wick
>so that the end of the piece is about 1/16" and that will suck up the
>solder bridge joining pad 12 nicely with no mess.

Jumper 12?

>I got the mod sheet from HRO when I bought the HT.

The first mod sheet HRO had talked about J13, but then they sent
out an update which was for extended rx only (i.e. it said to
remove both 13 AND 15) but didn't mention just removing 13 for
ext. tx.

I'd appreciate it if you could post the details of the mod sheet you

received if it differs from the above, especially useful would be a mod to eliminate the fixed 12.5Kc step in the 800-950 range, even nicer would be something enabling a 30Kc step. Of course, I don't know how that would be useful, but it would be nice to have :) :) :)

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-----
\ \ / Jon Gefaell, Computer Systems Engineer      | Amateur Radio - KD4CQY
  \ \ / Information Technology and Communications   | -Will chmod for food-
    \ / The University of Virginia, Charlottesville | Hacker@Virginia.EDU
The opinions expressed herein are not intended to be construed as those of UVA
```

Date: Tue, 13 Jul 1993 18:38:01 GMT
From: mentor.cc.purdue.edu!noose.ecn.purdue.edu!dynamo.ecn.purdue.edu!
wb9omc@purdue.edu
To: info-hams@ucsd.edu

References <1993Jul12.200632.23803@pixar.com>, <2347@indep1.UUCP>,
<21ucvb\$c3u@gopher.cs.uofs.edu>
Subject : Re: Communities that unduly restrict Amateur Radio operations

bill@cs.uofs.edu (Bill Gunshannon) writes:

>And if you honestly believe that you (or any amateur operator) will be
>missed for even a second, you are extremely naive. The general public
>doesn't know who you are, what you are, or what you do. They get along
>just fine now without you and their lives are no tlikely to end cause
>you won't use your radio to help them. They can't miss what they don't
>know exists.

>bill KB3YV

Bill, with all due respect, it is precisely this kind of attitude that isn't going to help one bit.

"The general Public doesn't know who you are, what you are or what you do."

That is nobodies fault but our own, and we can change that by getting ourselves some positive publicity. It just isn't that hard to do! We need to hit the newspapers every opportunity we get.

The framework is there, via clubs in local communities, and for those who are ARRL affiliated they can communicate upwards and sideways to other groups. Quite frankly, IMHO the league should be taking more of a lead in this - but I can also see from their perspective that if the local groups are too busy sitting on their complacent fannies nothing

that league says will mean much. I *do* think they could TRY to stimulate things just a bit.....

And in all fairness to the league (which I have slammed more than once) they did have some PR radio spots a few years back, around 1977 or 1978, for distribution to local broadcast stations. ONE of them featured Lorne Greene (hey, a little name recognition there....never hurts) talking up Amateur Radio.

At the time I was Station Manager of WLAY here at Purdue, and yes, we played those spots.

Unfortunately, I think the whole thing collapsed from a large case of ham inertia.

Let me tell you though, there are oodles of hams who work in broadcast or in recording studios that do radio production work. FIND them. If you have them locally, see what it takes to get some PSA spots made (hey, some of these guys will even do them in their spare time just because they're hams and maybe just might want to help!) and put on the air. Use them to plug Amateur Radio. Use them to announce local activities. And keep going.....stuff like this can't just be allowed to die of inertia.

Amateur Radio needs good PR right now, maybe more than ever. But if each one of us just sits back and stares at the old CRT here and figures somebody else will do it, it won't get done. And there will be MORE restrictive zoning, and we will lose more spectrum without a fight.

Duane
WB9OMC

Date: Tue, 13 Jul 1993 18:53:32 GMT
From: mentor.cc.purdue.edu!noose.ecn.purdue.edu!dynamo.ecn.purdue.edu!
wb9omc@purdue.edu
To: info-hams@ucsd.edu

References <2347@indep1.UUCP>, <21ucvb\$c3u@gopher.cs.uofs.edu>,
<1993Jul13.164317.14482@rsg1.er.usgs.gov>\$
Subject : Re: Communities that unduly restrict Amateur Radio operations

bodoh@dgg.cr.usgs.gov (Tom Bodoh) writes:

>|>

>|> And if you honestly believe that you (or any amateur operator) will be

>|> missed for even a second, you are extremely naive. The general public

>|> doesn't know who you are, what you are, or what you do. They get along
>|> just fine now without you and their lives are no tlikely to end cause
>|> you won't use your radio to help them. They can't miss what they don't
>|> know exists.
>|>
>|> bill KB3YV

>--
>I was wondering about this the other night. I think that while most people
>have heard of ham radio, nobody but hams seem to know what it's about. Many
>think that it is simply worldwide communications on HF, some think that it's
>some type of CB and some equate it to shortwave listening. It seems that
>some type of public awareness campaign would be in order. I'm not sure how
>this could be presented to the public or how it would be funded, but such a
>campaign should briefly describe several aspects of the hobby and emphasize
>the public/emergency service functions. Perhaps a full page ad in one or two
>magazines such as Time or Newsweek or in major newspapers would help. TV
>spots would certainly be helpfull and perhaps could qualify as public service
>ads, unfortunately that would mean that they run late at night. Funding is
>certainly the major roadblock - perhaps the ARRL has looked into this...

As I said before, it is up to us hams to more creatively use
the resources that we have. More specifically, 500,000+ hams that
come from all professions and backgrounds and have any number of useable
talents.

Half a million people, or whatever the current US count is,
is NOT a group that should be sneezed at. If we let it happen, it
is our own fault.

Duane
WB9OMC

End of Info-Hams Digest V93 #849
